# **David Henry**

**Nat. AFV Sales Manager** 

Clean Cities National Conference May 2002, Oklahoma City "Ford Motor Company is dedicated to providing ingenious environmental solutions that will position us as a leader in the automotive industry of the 21st century. Our actions will demonstrate that we care about preserving the environment for future generations."



William Clay Ford, Jr. Chairman of the Board and Chief Executive Officer

"Dave, What are doing standing around here? Go out there and sell some Ford AFV's!"

William Clay Ford, Jr. Chairman of the Board and Chief Executive Officer



# Ford's Commitment

- Ford Designed, Engineered, and Built
- All Ford AFV's are physically crash tested and FMVSS certified
- Full 3/36 Factory Warranty
- Optional 5/75 AFV Extended Service Plans
- Contributed over \$2.5M to Infrastructure development
- Invested over \$4M in Strategic Partnerships with Fuel Providers to promote awareness and develop infrastructure
- Invested over \$1M to support and promote "CLEAN LANE" Programs
- Invested over \$5M to support designated "Focus Cities"
- Committed \$6.5M to refurbish and resurrect Red Busses in Glacier National Park with new clean propane powered chassis

## Ford's Commitment

- Over the past 5 Years
  - 35,000 CNG Ford AFV's
  - 16,000 LPG Ford AFV's
  - 1.7M E85 Ford AFV's

# FORD IS COMMITTED TO GROWING THE AFV BUSINESS!!!



## 2003 Alternative Fuel Vehicles

# Natural Gas

# F-150 Bi-Fuel Pickup



### Highlights for 2003

- All new sequential multiport fuel control system that provides improved performance, reliability and durability
- ULEV certified to meet current government mandates
- Ford has produced more bi-fuel CNG pickups than any other OEM
- · A variety of body styles and GVW
- 4x2 and 4x4 powertrains
- Great for landscape trade and construction

## F-150 Bi-Fuel Pickup

- •5.4L V8 bi-fuel engine with 4speed electronic transmission
- •Single in-bed CNG tank with up to 289 km(180 miles) range
- •Over 965 km (600 miles) with CNG and gasoline combined
- •4-wheel anti-lock braking system (ABS)

- Power rack-and-pinion steering
- Vinyl front bench seat with 60/40 split
- Dual Second Generation air bags with passengerside deactivation switch

## F-150 Dedicated Pickup



Highlights for 2003

- •SULEV certified to meet, and exceed current government mandates
- •Best selling dedicated CNG pickup 5 years running
- •Based on North America's best selling pickup for 25 years running
- •CNG tanks providing up to 402 km (250 miles) range

### F-150 Dedicated Pickup

- 5.4L V8 bi-fuel engine with 4-speed electronic transmission
- Dual in-bed and single underbody mid-ship
- CNG tanks providing up to 402 km (250 miles) range
- 4-wheel anti-lock braking system (ABS)

- 7700# payload group with 3.73 axle included
- Vinyl front bench seat with 60/40 split

### E-Series Dedicated Van and Wagon



Highlights for 2003

· Variety: 5 models to choose from to suit your cargo or people-carrying needs

- · First OEM CNG vehicle to be SULEV certified
- Great for airport/hotel shuttles, deliveries, maintenance vans

## E-Series Dedicated Van and Wagon

- 5.4L V8 CNG engine
- New standard power windows
- New front grille
- New full length vinyl floor covering on
- commercial vans
- New cloth headliner for improved fit and finish

- New low fuel warning lamp in I/P cluster
- Side intrusion beams
- Dual Second Generation front air bags

# E-Series (450) Cutaway







### Highlights for 2003

- New school bus option available with 158" or 176" (4013 mm to 4470 mm) wheelbases
- Versatility: Can be ordered for shuttle, school bus or cube van applications
- · ULEV certified Best-in-Class emissions
- GVWR up to 6373 kgs (14,050 lbs)
- Great for airport/hotel/daily rental shuttles, delivery vans, school bus routes.
- Handicap access packages available

## E-Series (450) Cutaway)

- 5.4L V8 CNG engine
- Electronic 4-speed automatic transmission
- Three optional tank packages (3,4, and 5 tanks)
- that provide up to 450 km (280 miles) range.
- Tail lamps (available on all cutaway models)

- Power 4-wheel anti-lock braking system (ABS)
- Side intrusion beams
- Dual second generation air bags

### **Crown Victoria Sedan**



- Extended length now available with NGV option
- New front suspension design with new rack and pinion steering gear, and an innovative new frame that provides improved ride and outstanding handling.
- 5-star government front crash test rating for both driver and front passenger
- ULEV2/Bin3 emissions certified to meet mandates
- Ideal for taxi, police, daily rental, airport limousine



### **Crown Victoria Sedan**

- 4.6L SEFI V8 engine
- Electronically controlled
   4-speed automatic
- transmission with overdrive
- Personal Safety System
- Fail safe cooling system

- New anti-lock braking system (ABS) standard
- on all Series
- New side air bags on Commercial HD series
- New dual media radio AM/FM cassette

# Propane

# F-150 Bi-Fuel Pickup



### Highlights for 2003

- ULEV certified to meet current government mandates
- Ford has produced more bi-fuel Propane pickups than any other OEM
- · A variety of body styles and GVW
- 4x2 or 4x4 drivetrains
- Great for landscape trade and construction

# F-150 Bi-Fuel Pickup

- 5.4L V8 bi-fuel engine with 4-speed
- electronic transmission
- Single in-bed Propane tank with up to
- 643 km (400 miles) range
- Over 1287 km (800 miles) with LPG and
- gasoline combined
- 4-wheel anti-lock braking system (ABS)

- Power rack-and-pinion steering
- Vinyl front bench seat with 60/40 split
- Dual Second Generation air bags with
- passenger side deactivation switch

# **Ethanol**



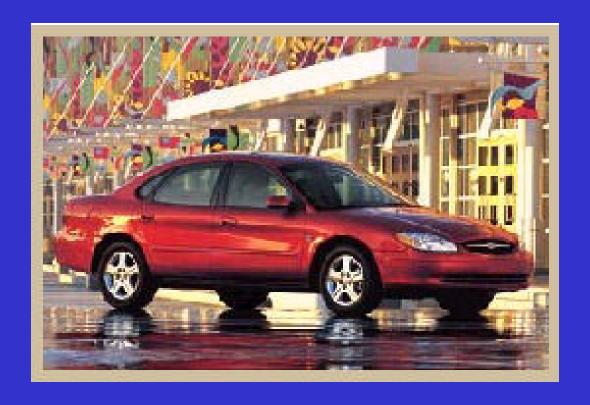
### **Explorer**

All new for the 4-door Explorer is the available Flexible Fuel System, which is standard on 4.0L SOHC V6 engines (with automatic transmission.)

#### Ranger

For the 2003 MY, a Flexible Fuel (E85) alternative will continue to be offered on the 3.0L 4x2 SuperCab with automatic transmission (XL, XLT and Edge).





### **Taurus**

The Taurus FFV continues with the following configurations: Sedan (LX, SE, and SES) and Wagon (SE).

# TH!NK



### TH!NK Neighbor

- ZEV certified
   Meets new U.S./Canadian federal standards for low speed vehicles
- Seats 2 or 4
- 4 wheel independent suspension
- Top Speed: 25 mph/Range: 30 miles
- Charges 110 AC in 6-hours

### TH!NK City

- ZEV certified
   (zero emission vehicle)
- Front-wheel Drive
- 2-Passenger
- Top Speed: 56 mph
- Range: 53 miles



# Coming Soon!

### Ford Escape Hybrid Electric Vehicle (HEV)



"The first high-volume, mainstream alternative to the traditional powertrain in nearly 100 years."

Bill Ford, Ford Motor Company

- Nearly 40 MPG (City driving)
- 500 Mile Range on single tank
- SULEV II Emissions
  - PZEV targeted for CA, MA, NY
- V6 like performance in an I4 engine

Coming in 2003!

# The ultimate emission free vehicle Hydrogen powered Focus Fuel Cell Vehicle (FCV).



- Zero Emission Vehicle (ZEV)
- <u>Hybridized</u> Technology
- Transparent driving experience
- Major issues:
  - Technology Cost
  - Hydrogen Infrastructure

Focus Fuel Cell vehicles available in 2004



## 2003 Alternative Fuel Vehicles